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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,905	07/12/2006	Gunter Wagner	502901-327PUS	1616

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EXAMINER	
COMLEY, ALEXANDER BRYANT	
ART UNIT	**PAPER NUMBER**
3746	

MAIL DATE	DELIVERY MODE
11/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/585,905	WAGNER ET AL.	
	Examiner	Art Unit	
	ALEXANDER B. COMLEY	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

1. The Examiner acknowledges receipt of Applicant's amendments and remarks filed with the Office on July 17th, 2008 in response to Non-Final Office Action mailed by the Office on April 15th, 2008. Per Applicant's response, all claims (Claims 1-7) have been amended. The Examiner has carefully considered each of Applicant's arguments and amendments, and they are addressed below.

Specification

2. The Examiner acknowledges Applicant's amendments to the specification in order to correct minor informalities in both the abstract and the detailed description sections. The Examiner has accepted these corrections, and consequently, has withdrawn the previous specification objections.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claims 1-7** rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,106,277 to Tuckey directed to a Drive Connection for a Fuel Pump Rotor in view of United States Patent No. 5,121,021 to Ward directed to a Frame and Magnet Assembly for a Dynamoelectric Machine.

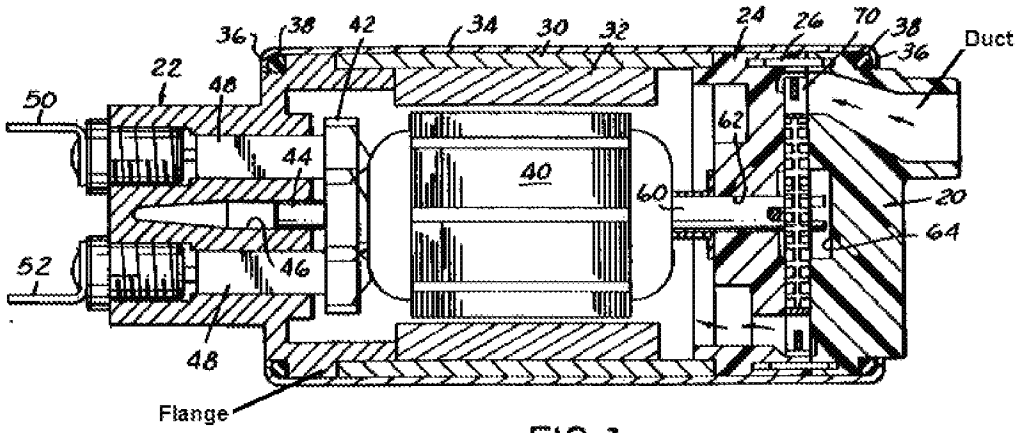

FIG. 1

In regards to Independent **Claim 1**, and with particular reference to Figure 1 shown immediately above, Tuckey discloses:

A fuel feed unit (Fig. 1) for delivering fuel, comprising: an electric motor (40); an electric motor stator ring (30); magnet shells (32) arranged inside the stator ring (30); and a motor casing (34) to accommodate the stator ring (30);

With reference to Figure 1 shown immediately above, Tuckey discloses a fuel pump for an internal combustion engine. Tuckey discloses an electric motor (40), a cylindrical flux ring (30) (i.e. stator ring), permanent magnets (32) (i.e. magnetic shells)

arranged inside the cylindrical flux ring (30), and a motor casing (34) to accommodate the cylindrical flux ring (30) (See column 1, lines 50-55 and Fig. 1). The disclosure according to Tuckey differs with respect to the applicant's invention in that no specific detail is provided teaching of a one-piece body comprising the stator ring (30) and an adjoining at least one of the motor casing or the magnet shells.

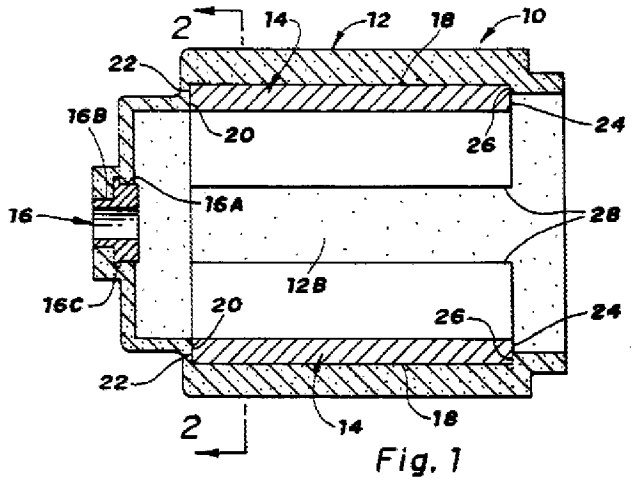

Fig. 1

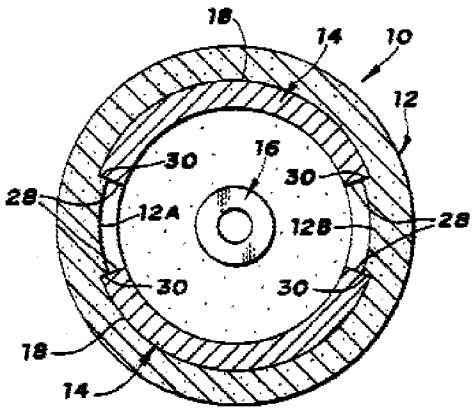

Fig. 2

However, Ward discloses the final remaining element missing from that of the primary Tuckey reference. In particular, Tuckey discloses:

> Wherein the electric motor stator ring and an adjoining component of at least one of the motor casing and the magnet shells comprise a single-piece body.

With particular reference to Figures 1 and 2 shown immediately above, Ward discloses a frame and permanent magnet assembly for a dynamoelectric machine. Ward's device is designed to simplify the assembly process by lessening the number of parts and eliminating the need for mechanical fasteners. In particular, Ward states "In the manufacture of the assembly, iron powder particles that are coated with a thermoplastic material are molded to the permanent magnets. The permanent magnets

have surfaces that are interlocked to the material of the frame thereby eliminating the need for mechanical fasteners or an adhesive to secure the permanent magnets to a frame." (Abstract) Moreover, it can be seen in Figure 1 that the stator ring-and-magnet assembly 14 is formed as a single piece that interlocks into the outer motor casing. Ward first discloses a singularly molded stator and magnet assembly by stating "The composite magnetic frame material is comprised of iron powder particles having a particle size in a range of about 10 to 250 microns that are coated with a thin layer of thermoplastic material. The composite material is molded to the permanent magnet. It, accordingly, is another object of this invention to provide a method of manufacturing a frame and permanent magnet assembly where a composite material of the type described is molded to the permanent magnet." (Column 1, Lines 24-32) Ward goes on to disclose the stator ring shape by stating "Permanent magnets 14 have an arcuate shape and have an outer surface 18 that engages frame 12. The frame 12 has an annular surface 20 that respectively engages arcuately extending end faces or surfaces 22 of magnets 14. The opposite end faces or surfaces 24 of magnets 14 respectively engage arcuately extending surfaces 26 of frame 12. The engaged surfaces 20 and 22 and 24 and 26 prevent the permanent magnets 14 from moving axially with respect to frame 12." (Column 2, Lines 11-19) Ward finishes by stating "As has been pointed out, the composite frame material is a magnetic material and, accordingly, forms a flux path for flux developed by the permanent magnets." (Column 5, Lines 37-39) Therefore, it can be seen that the stator ring and magnets are formed (i.e. molded) together as single piece 14, and therefore meet the claimed limitation of a "single-piece body". Therefore,

to one of ordinary skill desiring a simpler fuel pump assembly, it would have been obvious to utilize the techniques disclosed in Tuckey in combination with those seen in Ward in order to obtain such a result. Consequently, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the separate parts of Tuckey with the single-piece assembly of Ward in order to obtain predictable results; those results being a simpler fuel pump assembly that is more reliable and quicker to manufacture.

6. Regarding dependent **Claim 2**, the Ward portion of the combination teaches the use of iron or ferrite powder particles that are bounded together by a thermoplastic material. In particular, Ward states "The composite magnetic frame material is comprised of iron powder particles having a particle size in a range of about 10 to 250 microns that are coated with a thin layer of thermoplastic material. The composite material is molded to the permanent magnet. It, accordingly, is another object of this invention to provide a method of manufacturing a frame and permanent magnet assembly where a composite material of the type described is molded to the permanent magnet." (Column 1, Lines 24-32) With respect to dependent **Claim 3**, Tuckey in view of Ward discloses the claimed invention except for the specific use of polyphenyl sulfide material for the plastic. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilizes such a material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a mater of obvious design choice.

In re Leshin, 125 USPQ 416. In regards to dependent **Claim 4**, it can be seen in Figure 1 above that the frame 12 (i.e. casing part) forms a portion of the single-piece stator body 14. In particular, Ward states "A frame and permanent magnet assembly for a dynamoelectric machine where the frame carries a plurality of permanent magnets. The frame is formed of iron powder particles that are bound together by a thermoplastic material. In the manufacture of the assembly, iron powder particles that are coated with a thermoplastic material are molded to the permanent magnets. The permanent magnets have surfaces that are interlocked to the material of the frame thereby eliminating the need for mechanical fasteners or an adhesive to secure the permanent magnets to a frame." (Abstract) With respect to dependent **Claim 5**, the Tuckey portion of the combination discloses the use of a flange portion for the connection of a fuel line. As illustrated within Fig. 1 of Tuckey, the body (34) comprising the stator ring (8) has a flange portion for joining a connection piece (22) intended for the connection of a fuel line (50, 52) (See Fig.1). In regards to dependent **Claim 6**, Tuckey further discloses a bearing (60) for the rotor which can be seen in Fig.1 as being provided in an analogous manner as depicted by the applicant. Finally, regarding dependent **Claim 7**, it can be seen in Fig.1 according to Tuckey that the cylindrical flux ring (30) or stator ring is joined in one piece to a component (20) having a duct. Therefore, to one of ordinary skill desiring a simpler fuel pump assembly, it would have been obvious to utilize the techniques disclosed in Tuckey in combination with those seen in Ward in order to obtain such a result. Consequently, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the separate components of Tuckey with

the integral assembly of Ward in order to obtain predictable results; those results being a much simpler fuel pump that limits the number of parts necessary for assembly.

7. Applicant's arguments with respect to Claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER B. COMLEY whose telephone number is (571)270-3772. The examiner can normally be reached on M-F 7:30am - 5:00am EST (Alternate Fridays Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon C. Kramer can be reached on (571)-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander B Comley/
Examiner, Art Unit 3746

/Devon C Kramer/
Supervisory Patent Examiner, Art Unit 3746

ABC